

### Femtosecond Nd:glass Laser

SESAM<sup>®</sup> Technology

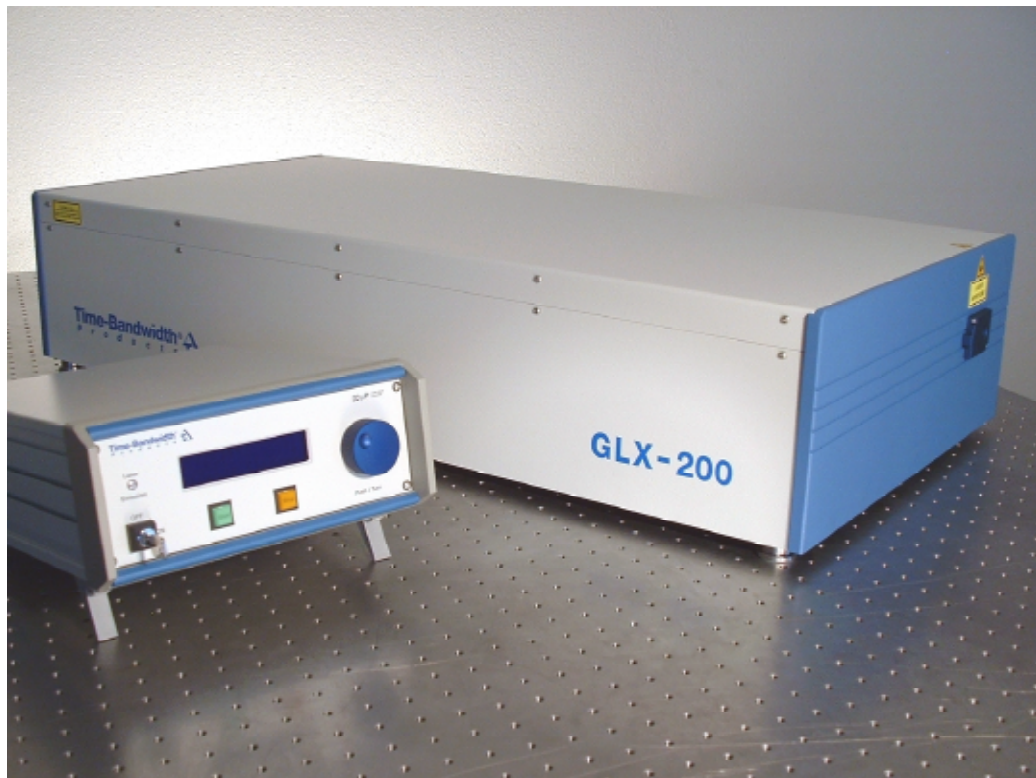
Customizable

#### Applications

- Seeding amplifiers
- RF photocathodes
- Pump-probe experiments
- Electro-optic sampling
- Opto-electronic testing
- Nonlinear optics
- Multi-photon excitation

#### Features

- Passively mode-locked DPSSL
- Turn-key operation
- Customizable design
- Low maintenance
- Air-cooled

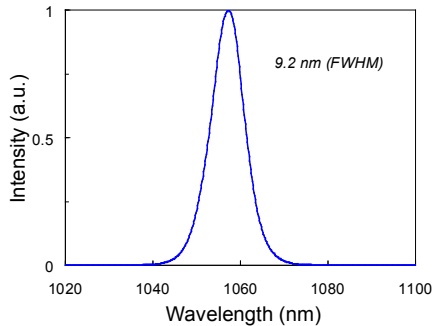


#### Options

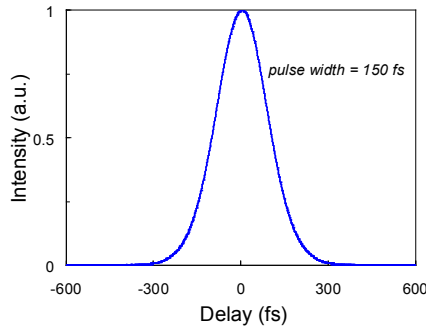
- Pulse picker
- Clock synchronization
- Switchable repetition rates
- Second harmonic generation
- Multiple output beams
- Remote control
- RS-232

|                   |                 |
|-------------------|-----------------|
| 150 fs, 200fs     | pulse width     |
| 1053 nm – 1064 nm | wavelength      |
| 70 MHz – 150 MHz  | repetition rate |
| 200 mW, 400 mW    | output power    |
| 1%/°C             | power stability |
| TEM <sub>00</sub> | spatial mode    |
| 1.1               | M <sup>2</sup>  |

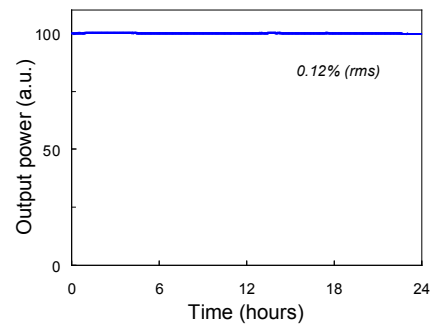
The GLX-200 laser system combines Time-Bandwidth Products' patented SESAM® mode-locking technology and an all-solid-state design for exceptional reliability and stability. Passive mode-locking with a SESAM® device provides nearly transform-limited femtosecond pulses at turn-on with very low amplitude and phase noise. Due to the use of diode pumping, the system has an unprecedented reliability and long-



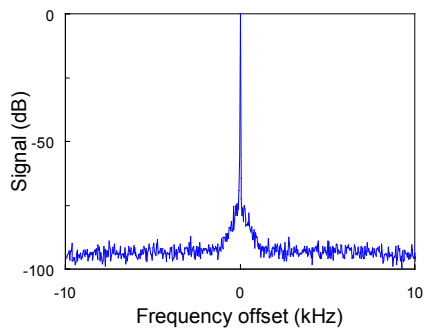
Optical spectrum of the GLX-200 laser pulses at the center wavelength (resolution: 0.1 nm)



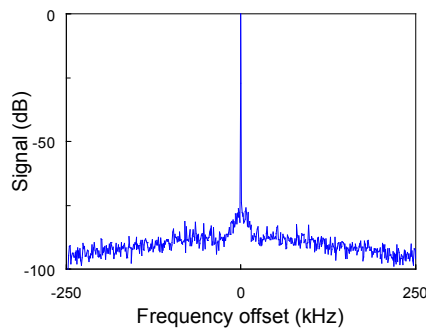
Typical non-interferometric autocorrelation trace of the GLX-200 laser pulses



Average laser output power (long term)



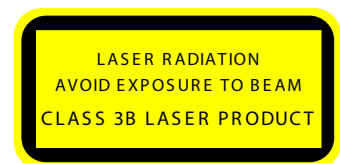
Typical microwave spectrum of the pulse train, centered at the laser repetition rate (span: 20 kHz, resolution: 3 Hz, vertical scale in dB)



Typical microwave spectrum of the pulse train, centered at the laser repetition rate (span: 500 kHz, resolution: 100 Hz, vertical scale in dB)

The GLX-200 is a customizable femtosecond Nd:glass laser system that can be tailored to suit your needs. With a wide range of user-defined repetition rates and an additional high-power model, the laser system can be made to fit your application. Both pulse width and center wavelength can be adjusted, and additional options such as second harmonic generation, pulse selection, and clock synchronization with the CLX-1100 system provide even more flexibility. The laser requires only standard wall-plug voltage and no cooling water, enabling easy installation and inexpensive operation.

| Additional specifications   | GLX-200 (all models)            |
|-----------------------------|---------------------------------|
| turn-on time                | 1 min                           |
| pointing stability          | 25 $\mu$ rad/°C                 |
| power stability (>1kHz)     | 0.1% rms                        |
| voltage                     | 100 VAC – 240 VAC               |
| frequency                   | 50 Hz – 60 Hz                   |
| input power (single phase)  | 200 VA                          |
| laser head (size, weight)   | 460 mm x 203 mm x 932 mm, 50 kg |
| power supply (size, weight) | 255 mm x 110 mm x 320 mm, 5 kg  |



**Does the GLX-200 laser system match your requirements? Please let us know the specifications of the laser you are looking for. A superior technology and a strong team enable us to tailor our products to your special needs.**

All specifications are subject to change without notice. All numbers given in this datasheet are typical values and may depend on the specific laser configuration. SESAM is a registered trademark in the following countries: USA, Switzerland, United Kingdom, Germany, Austria, Netherlands, Belgium, Luxembourg, France, Italy, Russia, China, Liechtenstein, Estonia, and Lithuania. This product is protected by one or several of the following patents: US6,538,298, US6,466,604